IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A method of adjusting the dynamics of an audio track, comprising:

~~deriving, from the audio track, a set of metadata describing a statistical distribution of levels encountered in the audio track;~~

deriving~~, from the metadata,~~ at least two parameters of a transfer function from a statistical distribution of levels encountered in the audio track;

deriving, from the transfer function, a time-varying gain to modify the statistical distribution of levels of the audio track; and

applying the time-varying gain to the audio track to obtain a resulting audio track,

wherein the transfer function comprises a multi-line transfer function, and

wherein the parameters include one or more compression thresholds derived based on a fractional measure of a number of frames of the audio track at one or more predetermined levels.

2. (Currently Amended) The method of claim 1 wherein the multi-line transfer function comprises a multi-line compressor transfer function,

wherein the one or more thresholds include one or more compression thresholds, and

wherein the step of deriving the transfer function comprises:

specifying a desired statistical dynamics distribution; and

deriving the parameters of the transfer function from the metadata and from the desired statistical dynamics distribution [[;]] such that a final statistical dynamics distribution encountered in the resulting audio track after application of the time-varying gain is similar to the desired statistical dynamics distribution.

3. (Original) The method of claim 1 wherein the step of deriving the time varying gain comprises:

specifying a desired overall loudness for the audio track;

deriving an estimate of the loudness of the resulting audio track from the metadata and from an initial estimate of the time-varying gain;

deriving a correction factor from the desired overall loudness and from the estimate of the loudness of the resulting audio track; and

applying the correction factor to the initial estimate of the time-varying gain to obtain the time-varying gain.

4. (Previously Presented) The method of claim 1 wherein the step of deriving the time varying gain comprises:

deriving, from histogram data of levels encountered in the audio track, an original dynamic spread value representing a spread of the levels encountered in the audio track;

performing a comparison between the original dynamic spread value and a desired dynamic spread value; and

deriving a parameter for the transfer function from the comparison.

5. (Previously Presented) The method of claim 1 wherein the step of deriving parameters comprises:

determining a slope of a segment of a compressor transfer function; and

determining a threshold between two segments of the compressor transfer function.

6. (Original) The method of claim 5 wherein the step of determining the slope comprises:

applying a test compression scheme to the histogram data to obtain test histogram data, the test compression scheme including a test slope;

determining a test dynamic spread value from the test histogram data; and

deriving the slope based on a comparison of the original dynamic spread value, the desired dynamic spread value and the test dynamic spread value.

7. (Original) The method of claim 6 wherein the slope for the compressor transfer function is determined using interpolation.

8. (Original) The method of claim 6 wherein the slope for the compressor transfer function is determined using iteration.

9. (Original) The method of claim 4 wherein the original dynamic spread value is derived from a mean absolute deviation from a mean loudness value for the audio track.

10. (Original) The method of claim 4 wherein the original dynamic spread value is derived from a mean absolute deviation from a median loudness value for the audio track.

11. (Original) The method of claim 4 wherein the parameters include a level of a threshold separating two segments of a compressor transfer function.

12. (Original) The method of claim 4 further comprising:

specifying a fraction representing a proportion of the audio track to which compression will be applied;

deriving from the histogram data a loudness value corresponding to a point above or below which the fraction of the histogram data is located; and

using the loudness value as a threshold separating two segments of a compressor transfer function.

13. (Original) The method of claim 6 further comprising:

deriving a test overall loudness value from the test histogram data;

deriving a fixed post-gain value from the test overall loudness value and from a desired loudness value; and

applying the time varying gain and the fixed post-gain value to the audio track.

14. (Currently Amended) A method of adjusting the loudness of an audio track including a plurality of audio frames, the method comprising:

obtaining loudness values for each of the plurality of audio frames;

applying a weighting factor to each of the loudness values to obtain a plurality of weighted loudness values;

aggregating the weighted loudness values to obtained an overall loudness value for the audio track;

comparing the overall loudness value to a desired loudness value; and

applying a gain to the audio track based on the comparison between the overall loudness value and the desired loudness value.

wherein applying the gain comprises compressing with a multi-line compression transfer function derived from statistical frequency data including one or more compression thresholds derived based on a fractional measure of a number of frames of the audio track at one or more predetermined levels.

15. (Original) The method of claim 14 wherein the weighting factor to be applied to a particular loudness value is derived from the particular loudness value itself.

16. (Original) The method of claim 15 wherein the weighting factor for a particular loudness value comprises an emphasis parameter raised to a power of the particular loudness value.

17. (Original) The method of claim 14 wherein the weighted loudness values of the plurality of audio frames are aggregated using a histogram.

18. (Currently Amended) A method of altering a dynamic range of an audio track comprising a plurality of audio frames each having a loudness value, the method comprising:

obtaining original statistical frequency data for the audio track;

applying a test compression scheme to the original statistical frequency data to obtain test statistical frequency data;

deriving from the original statistical frequency data and the test statistical frequency data an actual compression scheme; and

compressing the audio track using the actual compression scheme,

wherein compressing using the actual compression scheme comprises compressing with a multi-line compression transfer function derived from the statistical frequency data including one or more compression thresholds derived based on a fractional measure of a number of frames of the audio track at one or more predetermined levels.

19. (Original) The method of claim 18 further comprising:

obtaining a mean loudness deviation value from the loudness values for the plurality of audio frames;

determining a test mean loudness deviation value from the test statistical frequency data; and

comparing the mean loudness deviation value and the test mean loudness deviation value with a desired mean loudness deviation value when deriving the actual compression scheme.

20. (Currently Amended) A method of processing an audio track comprising:

obtaining statistical frequency data for the audio track;

applying a compression scheme to the statistical frequency data to obtain an estimate of statistical frequency data that would result from applying the compression scheme directly to the audio track;

determining an estimated overall compressed loudness value from the estimate of statistical frequency data;

compressing the audio track using the compression scheme to obtain a compressed audio track; and

applying a gain to the compressed audio track based on a comparison between the estimated overall compressed loudness value and a desired loudness value

wherein compressing using the compression scheme comprises compressing with a multi-line compression transfer function derived from the statistical frequency data including one or more compression thresholds derived based on a fractional measure of a number of frames of the audio track at one or more predetermined levels.

21. (Original) The method of claim 20 wherein the overall compressed loudness value is obtained by:

obtaining a plurality of individual loudness values from the estimate of statistical frequency data;

applying a weighting factor to each of the individual loudness values to obtain weighted loudness values; and

aggregating the weighted loudness values to obtained the overall compressed loudness value for the audio track.